

Frog Watching



Long ago, people who worked deep in mines brought with them a canary in a cage. Canaries are very delicate—if the air in the mine became bad, the canary died. If that happened, the miners knew they needed to get out before the air got bad enough to harm them too. Frogs, and other creatures known as **amphibians**, are to the world like canaries are to a coal mine.

Sensitive Amphibians

Amphibians require both land and water environments to live. Their skin is very thin and porous. Their young hatch from eggs without shells. These characteristics make amphibians very sensitive to changes in their environment. Climate change or pollution affects them immediately. Therefore, they are among the first animals to die when the environment changes. In this way, frogs warn humans that something is wrong.

Something is wrong right now. Frogs and other amphibians are

dying off at an alarming rate. They are also being born with deformities, such as extra legs. This tells us that there is a problem that is affecting their genes—those microscopic codes that tell the body how it is going to look. Normal frog genes do not include a code for five legs!

We do not have to wait for animals to become extinct to stop the problem. Over 200 species of amphibians around the world have experienced a fast drop in their populations. Imagine having 40 neighbors one summer and then the next summer you notice that you only have 12 neighbors left. That would be a fast decline in the population in your neighborhood. It would make you think something is wrong in your neighborhood, wouldn't it?

Why the Decline?

There are lots of explanations for why amphibians are dying off. We use a lot of pesticides on farm crops to kill bugs and prevent diseases. We use them in our backyards, too,

to kill bugs in the flower and vegetable gardens or to kill weeds and grubs in our lawns. The overuse of pesticides has been proven to have a bad impact on animals.

Also, burning gasoline to run our cars and oil to heat our homes causes the earth's temperature to rise. This is known as **global warming**. Amphibians are affected by global warming.



The Golden Frog

The human population of the Latin American country Panama is growing rapidly. People need houses. Houses need land to sit on and lumber to make them. Both harvesting the lumber and clearing the land for houses and cattle ranches has changed the habitat of the Panamanian Golden Frog drastically and is thought to be in part responsible for the frog's decline in population.

Sadly, the Golden Frog's beautiful gold color adds to its decline—people like to collect them. Over-collection,

according to the website of Project Golden Frog, is a serious problem for the frog. The Golden Frog's dilemma is just one example of frog species in trouble all over the world.

Research

Scientists have been trying to figure out exactly what is affecting frogs and other amphibians in different parts of the world. They have gotten together in conferences to talk about it. Groups like FrogWatch and the National Amphibian Monitoring Project have started counting frogs each year. They keep an eye on amphibians around the world to see if the numbers get smaller from one year to the next.

What Can You Do to Help the Frogs?

What can be done? Some researchers are beginning to breed certain frog species in captivity to help save those that are threatened. We can all join in the effort of our own town's conservation commission to recognize important areas of land to conserve. We can then protect wildlife habitat and wetlands from becoming malls and housing developments by clustering houses and stores and leaving wide open spaces wherever possible. We can slow down the rate of global warming by creating and driving cars that use fuels other than gasoline—perhaps you can become the scientist that solves the world's global warming problem!